Amendments to the Claims

 (currently amended): A method for scheduling communication between a plurality of components in an integrated circuit (IC) coupled to at least one communication medium and at least one scheduling processor comprising the steps of:

initiating a transfer by said <u>at least one</u> scheduling processor sending a transfer command to a first <u>IC</u> component;

transferring data from said first <u>IC</u> component to a second <u>IC</u> component over said <u>at</u> <u>least one</u> communication medium;

said second <u>IC</u> component notifying a third <u>IC</u> component upon completion of said transferring data step;

wherein said transfer command to said first <u>IC</u> component identifies said second and said third <u>IC</u> components.

(currently amended): The method of claim 1 further comprising the steps of:
initiating another transfer by said <u>at least one</u> scheduling processor sending a transfer
command to a fourth <u>IC</u> component;

transferring data from said fourth <u>IC</u> component to a fifth <u>IC</u> component; said fifth <u>IC</u> component notifying a sixth <u>IC</u> component upon completion of said transferring data step;

wherein said transfer command to said fourth \underline{IC} component identifies said fifth and said sixth \underline{IC} components.

3. (previously presented): The method of claim 2 wherein said components include a microprocessor and said method further comprises the step of: said microprocessor executing program code.

4. (currently amended): A method of controlling system operation between a plurality of components in <u>an integrated circuit (IC)</u> coupled to at least one communication medium and at least one scheduler comprising the steps of:

said scheduler sending a first command to a first <u>IC</u> component to transfer data over said <u>at least one</u> communication medium;

said <u>at least one</u> scheduler sending a second command to a second <u>IC</u> component to transfer data over said <u>at least one</u> communication medium;

notifying said second <u>IC</u> component upon completion of said first command; initiating execution of said second command upon completion of said notifying step.

- 5. (previously presented): The method of claim 4 wherein said sending a first command and said sending a second command step can occur in any order.
- 6. (currently amended): The method of claim 5 wherein said method further comprises the step of:

said <u>at least one</u> scheduler deciding an order to send said first command and said second command and creating a chained sequence of transfers.

- 7. (currently amended): The method of claim 6 wherein said <u>at least one</u> scheduler includes a microprocessor and said method further comprises the step of: said microprocessor executing a program.
- 8. (currently amended): A method of controlling system operation between a plurality of components in an integrated circuit (IC) coupled to at least one communication medium and at least one scheduler comprising the steps of:

receiving a first command from said scheduler by a first <u>IC</u> component to transfer data over said <u>at least one</u> communication medium;

receiving a second command from said scheduler by a second <u>IC</u> component to transfer data over said <u>at least one</u> communication medium;

> performing said first command; notifying said second <u>IC</u> component upon completion of said performing step; and initiating said second command upon completion of said notifying step.

- 9. (previously presented): The method of claim 8 wherein said receiving a first command, said receiving a second command, and said performing steps can occur in any order.
- 10. (currently amended): The method of claim 9 further comprising the steps of: sending said first command by said <u>at least one</u> scheduler; and sending said second command by said <u>at least one</u> scheduler
- 11. (currently amended): The method of claim 10 wherein said at least one scheduler includes a microprocessor and said method further comprises the step of: said microprocessor executing a program.
- 12. (currently amended): A method of controlling a system including a plurality of components in an integrated circuit (IC) coupled to at least one communication medium and at least one scheduler comprising the steps of: said at least one scheduler receiving transfer requests from requesting IC components; said at least one scheduler constructing a transfer command for each of said transfer requests;

said <u>at least one</u> scheduler sending said transfer commands to said requesting <u>IC</u> components;

wherein said transfer command further comprises;

- (a) a destination address identifying a destination component; and
- (b) a notification address identifying an acknowledge component.
- 13. (currently amended): The method of claim 12 wherein said at least one scheduler includes a microprocessor and said method further comprises the step of:

said microprocessor executing program code.

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- 26. (currently amended): The method of claim 2 further comprising the steps of: said <u>at least one</u> scheduling processor deciding an order to perform said transfers; and creating a chained sequence of said transfers.
- 27. (currently amended): The method of claim 3 further comprising the steps of: said <u>at least one</u> scheduling processor deciding an order to perform said transfers; and creating a chained sequence of said transfers.
- 28. (currently amended): The method of claim 12 further comprising the steps of: said <u>at least one</u> scheduling processor deciding an order to perform said transfers; and creating a chained sequence of said transfers.
- 29. (previously presented): The method of claim 1 wherein: said transfer command is communicated over a first medium; and said transferring step is performed over a second medium.
- 30. (previously presented): The method of claim 4 wherein: said step of sending a first command is communicated over a first medium; and said step of sending a second command is communicated over a second medium.
- 31. (currently amended): The method of claim 4 further comprising the step of: transferring data from said first <u>IC</u> component over a first medium; and wherein said step of sending a first command is communicated over a second medium.
- 32. (previously presented): The method of claim 6 wherein:

- said step of sending a first command is communicated over a first medium; and said step of sending a second command is communicated over a second medium.
- 33. (currently amended): The method of claim 6 further comprising the step of: transferring data from said first <u>IC</u> component over a first medium; and wherein said step of sending a first command is communicated over a second medium.
- 34. (previously presented): The method of claim 8 wherein: said first command is communicated over a first medium; and said step of performing said first command is performed over a second medium.
- 35. (previously presented): The method of claim 10 wherein: said first command is communicated over a first medium; and said step of performing said first command is performed over a second medium.
- 36. (currently amended): The method of claim 12 further comprising the step of: transferring data from said requesting <u>IC</u> components over a first medium; and wherein said step of sending said transfer commands is performed over a second medium.
- 37. (currently amended): The method of claim 12 further comprising the step of: transferring data from said requesting <u>IC</u> components over a first medium; and wherein said step of sending said transfer commands is performed over a plurality of second mediums.